

### **ABSTRACT OF THE DISCLOSURE**

Systems and methods for detecting, monitoring, and/or treating neurological events based on, for example, electrical signals generated from the patient's body are disclosed. Various embodiments of the invention include a system for predicting occurrence of a neurological event in a patient's body. The system may include an implant configured to be placed in the body and detect signals indicative of an activity that precedes the neurological event, and a processing unit configured to process the detected signals so as to predict the neurological event prior to the occurrence.